the finality of the Office Action dated July 31, 2002. Applicant hereby requests that the finality of the Office Action, dated July 31, 2002, be withdrawn for the following reasons.

An Amendment was filed May 14, 2002, in response to the non-final Office Action of February 26, 2002. In that Amendment, claims 2 and 19 were amended, the application thereupon having claims 1 through 21 pending, with claims 1, 5, 16 and 18 being independent claims.

In the Office Action dated February 26, 2002, claims 2-4, 14, 15 and 19-21 were rejected under the second paragraph of 35 USC §112. Also, claims 1-21 were rejected under 35 USC §103 as unpatentable over two articles **Equifax** in view of **Data Mining**. In contrast, the Final Office Action of July 31, 2002 rejects claims 1-21 under 35 U.S.C. §102 as anticipated by a newly applied reference **"Bayesian Model Averaging"**. Although claims 2 and 19 were amended in response to the rejection under 35 USC §112, claims 1, 3-18, 20 and 21 remained unchanged and in particular, independent claims 1, 5, 16 and 18 were not amended. Thus, claims 1, 3-8, 20 and 21 are rejected on a new ground that is neither necessitated by Applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.979(c). It is submitted, therefore, that the finality of the Office Action is premature (Please see MPEP 706.07(a); 706.07(d)). Withdrawal of the finality of the rejection is respectfully solicited.

<u>Prior Art Rejection</u>

Claims 1-21 are pending and active in the present application, all of which stand rejected. Claims 1 and 18 stand rejected under 35 USC 102 as anticipated by "Bayesian Model Averaging: A Tutorial (with discussion)", Statistical Science 14:4, pp. 382-417, Jennifer A Hoeting et al., November 1999. Claims 2-17 and 19-21 stand rejected under 35 USC 103 as unpatentable over the "Bayesian Model Averaging" article as applied to claim 1 in view of the admitted prior art.

<u>Claims 1 and 18 stand rejected under 35 USC 102</u>

The factual determination of lack of novelty under 35 USC 102 requires the <u>identical</u> disclosure in a single reference of each element of a claimed invention, such that one having ordinary skill in the art would have recognized that the identically claimed invention is within the public domain. **ATD Corporation v. Lydall, Inc.**, 159 F.3d 534, 48 USPQ2d 1321 (Fed. Cir. 1998). Accordingly, in deciding the issue of anticipation, the Examiner must (a) identify the element of the claims, (b) determine the meaning of the elements in light of the specification and prosecution history, and (c) identify corresponding elements disclosed in the allegedly anticipating reference. **Lindermann Maschinenfabrik GMBH v. American Hoist & Derrick Co.**, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

Applicant urges that this burden has not been discharged. Moreover, there are significant differences between the cited prior art and the invention defined in claims 1 and 18 that would preclude a factual determination that the "Bayesian Model Averaging" article identically describes the claimed invention within the meaning of 35 USC 102.

Applicant stresses that the "Bayesian Model Averaging" article deals solely with the combining of models; that is, its "combination" occurs at the model level. In contrast, the present invention relates to combining of scores from different segmentation strategies. This fundamental difference leads to very different implementations, executions, and results. While the two approaches may appear to use similar terminology or principles, such a conclusion is factually incorrect and Applicant vigorously urges that the "averaging of models" taught by the prior art article is not identical to, or even suggestive of, the combination of different segmentation strategy scores recited in claims 1 and 18. For instance, the present inventive method can advantageously use an "averaged-model" as one segmentation strategy (of two or more) to produce a score for each member of the population. BMA, though, makes no allowance for the integration of the present inventive method.

In a practical manner, the concept of Bayesian Model Averaging appears only to be able to be applied to a single class of models (e.g., only linear regression, or only CART, etc.) during a single implementation of the described method. [The first full paragraph of the left column of p.386 describes the limiting of BMA analysis to a single class of models. See, also, page 397, the paragraph spanning the left and right columns and the first full paragraph of the right-column on p. 398]. In direct contrast, as taught by the present invention, combining of scores from different segmentation strategies does not have this limitation but can occur across different classes of models.

Throughout the article and the examples, the Bayesian Model Averaging method is not used for multiple targets but, rather, its usefulness is limited to predicting only a single target. This limitation is also an indication of its difference from the presently

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claimed method that combines·scores from different, or multiple, segmentation strategies. For example, the present inventive method can "target" both (a) a higher response rate from mailer recipients and (b) higher average sales transaction amount.

One of the clearest indicators of the difference between model averaging (of the prior art article) and the combining of different scores (as presently claimed) is the great computational difficulty involved in Bayesian Model Averaging (BMA).

Examples of combining scores from different segmentation strategies are presented in the present specification. Although these examples are not intended to be exhaustive, they are clear evidence of the relatively simple statistical combination (e.g., weighted averaging) that can be performed with different segmentation strategy scores. In direct contrast, however, combining models (as taught by the prior art article) is an extremely difficult task that is not equivalent to the claimed invention. Support for this argument is found in at least the following passage from the prior art article:

a) "The number of terms in (1) can be enormous, rendering exhaustive summation infeasible". (p. 384, left column, first bullet point).

b) "The integrals implicit in (1) can in general be hard to compute". (p. 384, left column, second bullet point). "Another difficulty in implementing BMA is that the integrals of the form (3) in (1) can be hard to compute". (p. 386, left column, 3rd full paragraph).

c) "However, this approximation is not easy to compute for generalized linear models using readily available software". (p. 388, left column, first paragraph).

d) "One common criticism of model averaging is that the results may be too complicated to present easily." (p. 398, right column, 3rd full paragraph).

e) "... implementing BMA in high-dimensional problems with correlated variables, such a non-parametric regression, is still a challenge from both a computational standpoint and the choice of prior distributions." (p. 403, right column, 1st full paragraph).

Of the above quotations from the prior art article, the most convincing pieces of evidence that model averaging is different than combining different scores is captured in statements (c) and (e) above. Almost any, ordinary statistical software from the last 20 years could easily combine scores as taught by the embodiments of the present invention described within the specification. That BMA can not be so accomplished, strongly indicates that it is fundamentally different than the present invention recited in claims 1 and 18. Applicant urges that, in light of the present specification and the evidence from the BMA article, that model averaging is not identical to combining scores from different segmentation strategies as recited in claims 1 and 18.

Accordingly, Applicant asserts that the BMA article does not disclose or suggest the recited steps of:

"running more than one segmentation strategy ... to generate for each strategy a score", and
"generating a first composite score ... by combining each of the scores"

as meant within claims 1 and 18 when interpreted in light of the specification by one of ordinary skill in the art. Thus, reconsideration and withdrawal of the rejection under 35 USC 102 of claims 1 and 18 are respectfully requested.

Claims 2-17 and 19-21 stand rejected under 35 USC 103

Claims 2-17 and 19-21 stand rejected under 35 USC 103 as unpatentable over the "Bayesian Model Averaging" article as applied to claim 1 in view of the admitted prior art and other prior art.

As the identified reference does not disclose or suggest every feature recited in claims 1 and 18, it does not provide that necessary factual basis required to establish a prima facie case of obviousness under 35 USC §103 with respect to claims dependent from claims 1 and 18. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 USC §103 of dependent claims 2-4 and 19-21.

Independent claims 5 and 16 each include a recitation of features that closely mirror the above-discussed features of claim 1. For the reasons just presented with respect to claim 1, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 USC §103 of claims 5 and 16 and all of their dependent claims.
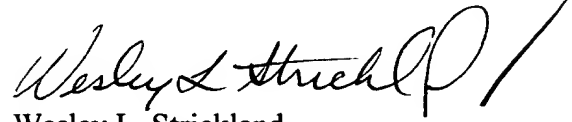
SUMMARY

In view of the above remarks, Applicant believes that claims 1-21 are in condition for allowance and passage of this case to issue is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this

paper, including extension of time fees, to Deposit Account 500417 and please credit any

excess fees to such deposit account.

Respectfully submitted,

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